

Optimization of Protection Coordination for Reliable Fault Isolation in Power Distribution Systems

Abstract

This project involves a protection coordination study of the IPR electrical distribution network, which includes a 132 kV substation and downstream 22 kV, 11 kV, and 415 V levels. The work emphasizes achieving selective and dependable fault isolation across different voltage levels through effective coordination of protective devices such as relays, circuit breakers, and fuses. System modelling and fault analysis are performed to assess protection performance under various operating conditions. The outcomes contribute to improved system reliability, minimized outage effects, and enhanced safety and efficiency of the distribution network.

Academic Project Requirements:

1) Required No. of student(s) for academic project: 2

2) Name of course with branch/discipline: B.E./B.Tech. Electrical

3) Academic Project duration:

(a) Total academic project duration: 6 Weeks

(b) Student's presence at IPR for academic project work: 3 Full working Days per week

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